# Environmental Management Performance Report

September 2001



Discharge Chute Cleanout at F Reactor Using the Brokk™ Excavator



Knee Brace Platform Support Installation at the 233-S Facility



Completion of Demolition and Removal of the 116-N-3 Bypass Structure

# Focused on Progress... Focused on Outcomes!

Financial/Performance Measures data as of month-end July. All other data as of August 23 (unless otherwise noted).





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### INTRODUCTION

The monthly Environmental Restoration (ER) Environmental Management Performance Report consists of three sections: Section A - Executive Summary, Section B - Restoring the River Corridor Project Summaries, and Section C - Transitioning the Central Plateau Project Summaries. All cost, schedule, milestone commitments, performance measures, and safety data are current as of July 31. Accomplishments, Issues and Integration items are current as of August 23, unless otherwise noted.

Section A - Executive Summary. This section provides an executive level summary of Bechtel Hanford, Inc.'s (BHI) performance information for the current reporting month and is intended to bring to management's attention that information considered to be most noteworthy. The Executive Summary begins with a description of notable accomplishments that are considered to have made the greatest contribution toward safe, timely, and cost-effective cleanup. Major commitments are summarized that encompass Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) milestones, and fiscal year 2001 (FY01) Environmental Management (EM) corporate performance measures. Safety statistics are also included. Issues that require management and/or regulator attention and resolution status are addressed. Fiscal year-to-date Environmental Restoration Contractor (ERC) Project cost and schedule variance analysis is summarized. The Key Integration Activities section highlights site activities that cross contractor boundaries and demonstrates the shared value of working as a team to accomplish the work. The Executive Summary ends with a listing of major upcoming planned key events within a 90-day period.

Section B – Restoring the River Corridor. This section contains more detailed monthly activity information and performance status for the three projects within the 'Restoring the River Corridor' outcome. These three projects consist of the Remedial Action and Waste Disposal (RAWD) Project, Decommissioning Projects, and the Program Management and Support (PM&S) Project.

Section C – Transitioning the Central Plateau. This section contains more detailed monthly activity information and performance status for the two projects within the 'Transitioning the Central Plateau' outcome. These two projects consist of the Groundwater/Vadose Zone (GW/VZ) Integration Project and the Surveillance/Maintenance and Transition (SM&T) Projects.

Information in this report is identified with a green, yellow, or red text box used as an indicator of the overall status. Green indicates work or issue resolution is satisfactory and generally meets or exceeds requirements; yellow indicates that significant improvement is required; and red indicates unsatisfactory conditions requiring immediate corrective actions.

# **Section A: Executive Summary**

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## SECTION A – EXECUTIVE SUMMARY

Financial / Performance Measures data as of month-end July. All other data as of August 23, 2001 (unless otherwise noted)

#### NOTABLE ACCOMPLISHMENTS:

#### RIVER CORRIDOR:

On July 2, the Environmental Restoration Disposal Facility (ERDF) marked its five-year anniversary of disposal operations while also observing receipt of 2.721,540 metric tons (3.000,000 tons) of contaminated waste without a lost-time accident. Since project inception in 1996, the ERDF transportation team has also driven 8,445,641 kilometers (5,249,000 miles) without an at-fault accident. 456,244 metric tons (502,926 tons) of waste have been disposed in fiscal year 2001 (FY01), which is about 2% ahead of the plan. To date, a total of 2,763,006 metric tons (3,045,709 tons) of material have been disposed in ERDF.

Excavation was completed for the removal of three concrete pipelines in the 100 B/C Area. Pipeline trench cleanup continued for two additional pipelines. Excavation of the river outfall structures also progressed. In the 100 F Area, excavation proceeded at three waste sites.

On July 19, backfill operations were completed at the 100 H Area (liquid waste sites/pipelines) more than two months ahead of schedule, which satisfies Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-16-26C (due September 30).

Demolition, size reduction, and excavation activities were completed during July on the 116-N-3 bypass structure in the 100 N Area. Demolition activities also began at the 1312-N inlet structure and two valve houses.

In the 300 Area, uranium oxide drum sampling was completed at the 618-4 Burial Ground with a total of 54 drums sampled. Six of the drums that had been considered oxide drums turned out to contain uranium chips and oil. Other drum maintenance activities consisted of adjusting oil levels in the uranium chip drums, along with placement of weather caps on the metal drums to prevent rainwater from collecting on the drums. Four drums were placed in new overpacks.

All remediation work was completed at the 600-23 waste site on July 25, which satisfies Tri-Party Agreement Milestone M-16-41A, "Complete Remedial Action Excavation for J.A. Jones 1 and 600-23 Waste Sites," due July 31.

Reactor interim safe storage (ISS) activities proceeded at the 100 Area F, D, DR, and H Reactors during July. The F Reactor Fuel Storage Basin (FSB) sampling analysis results were received. Results indicated the lower fill/sludge waste can be designated as nonregulated waste. The Brokk<sup>TM</sup> excavator was used in completing cleanout of the FSB discharge chutes, fuel basket removal and staging, and refilling sampling holes. The Universal Radiation Spectrum Analyzer (URSA) (radiological detector) was deployed in the FSB for the first time on July 19. Radiological gamma spectrums were taken of various items within the FSB, including fuel storage buckets and open sample hole locations.

The F Reactor safe storage enclosure (SSE) 25% roof design was reviewed, and comments were provided to the subcontractor. Design walkdowns were completed for the DR Reactor SSE on July 12, and the 25% roof design was received on July 31.

At D Reactor, demolition began on the above-grade structure of the supply fan rooms/seal pit on July 24. Backfill of the valve pit was also started in mid-July. At H Reactor, asbestos removal was completed in the outer rod room and electrical equipment room/ready room. During July, the D and H Reactor Sampling Analysis Plans (SAPs) were also approved by the Washington State Department of Ecology (Ecology) with no comments.

Green

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### **NOTABLE ACCOMPLISHMENTS continued:**

During July, 233-S Plutonium Concentration Facility decommissioning activities included the removal of the L-3 vessel. Through July, six of the eight vessels planned for FY01 removal have been completed, on or ahead of schedule. A total of 15 vessels are planned for removal by June 2002. Work commenced on removal of the next vessel, L-12.

During July, a Bechtel Hanford, Inc. (BHI) risk assessment coordinator received a National Environmental Excellence Award from the National Association of Environmental Professionals. The award was presented for participation on the U.S. Department of Energy (DOE) Biota Dose Assessment Committee during the development of the graded approach for evaluating radiation doses to aquatic and terrestrial biota.

FY03 budget development efforts during July included entering/reviewing FY03 budget data in the DOE Headquarters (HQ) Integrated Planning, Accountability, and Budgeting System (IPABS). Support continued for various FY02 funding exercises, as requested by DOE Richland Operations Office (RL) and HQ. Support was also provided in preparation for the upcoming HQ Environmental Management liability audit.

#### **CENTRAL PLATEAU:**

The Groundwater/Vadose Zone (GW/VZ) Integration Project (Integration Project) presented a paper on long-term surface barrier technology issues at a National Academy of Sciences (NAS) workshop. A review was also completed for the science and technology (S&T) portion of the Hanford Site Integration Project. The S&T program earned positive marks from the 18-month review by the National Research Council, which is a part of the NAS.

On July 11, drilling was initiated for the calendar year 2001 (CY01) *Resource Conservation and Recovery Act* (RCRA) well installations. Eleven wells are planned for installation by December 31. The first six wells will be installed in support of the Office of River Protection (ORP).

Through July, 17 of 28 FY01 well injections were completed at the In Situ Redox Manipulation (ISRM) Project barrier emplacements.

Decommissioning activities were completed for all 90 wells as planned for FY01.

All groundwater pump and treat systems operated above the planned 90% availability levels in July. Since system inception, the five pump and treat systems have processed over 5.1 billion liters of groundwater, removing approximately 5,664 kilograms of carbon tetrachloride, 253 kilograms of chromium, and 1.06 curies of strontium. Approximately 965 million liters of groundwater have been processed in FY01, removing approximately 1082 kilograms of carbon tetrachloride, 59 kilograms of chromium, and 0.172 curies of strontium.

Approximately 317 million liters of vapor were processed through the 200-ZP-2 soil vapor extraction system during July, removing 100 kilograms of carbon tetrachloride. 1.7 billion liters of vapor have been processed in FY01, with 367 kilograms of carbon tetrachloride removed.

In the 200 Area, drilling, sampling, and geophysical logging operations were completed at the 216-T-26 Crib on July 20. This satisfies FY02 *Tri-Party Agreement* Milestone M-15-41A, "Complete 200-TW-1 Operable Unit Field Work Through Drilling and Sample Collection," (due October 31) more than three months ahead of schedule.

Site surveillance and maintenance (S&M) activities proceeded in July to ensure inactive facility integrity and safety. Roof repairs were completed at the 212-N, 212-R, and 221-U facilities. An evaluation was submitted for review that outlined alternatives for interim stabilization of the two hexone tanks in the 200 Area.

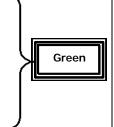
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### NOTABLE ACCOMPLISHMENTS continued:

The public comment/review period was completed for the B Reactor Engineering Evaluation/Cost Analysis (EE/CA) document. The U.S. Environmental Protection Agency (EPA) will now begin preparation of the Action Memorandum for B Reactor.

The draft Canyon Disposition Initiative (CDI) Phase III feasibility study and proposed plan were submitted to RL for review. This study provides a detailed analysis of several alternatives to be considered for final disposition of the deactivated 221-U (U Plant) chemical processing canyon facility. The study is also expected to influence a final disposition determination for the four other canyon facilities on the Hanford Site (PUREX, B Plant, REDOX, and T Plant).



## MAJOR COMMITMENTS:

## **Tri-Party Agreement Milestones:**

There are currently 15 Tri-Party Agreement milestones scheduled for completion during FY01. Through July, a total of 15 milestones have been completed, all ahead of schedule (14 FY01 milestones and one FY02 milestone). During July, two FY01 milestones were completed. M-16-26C, "Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit as Defined in Remedial Design Report/Remedial Action Work Plan for the 100 Area" (due September 30) was completed on July 19, more than two months ahead of schedule; and M-16-41A, "Complete Remedial Action Excavation for J.A. Jones 1 and 600-23 Waste Sites" (due July 31) was completed on July 25, six days ahead of schedule. In addition, one FY02 Tri-Party Agreement Milestone, M-15-41A, "Complete 200-TW-1 Operable Unit Field Work Through Drilling and Sample Collection" (due October 31) was completed on July 20, more that three months ahead of schedule.

One Tri-Party Agreement milestone is currently unrecoverable. Milestone M-16-03E, Complete Remediation of Waste Sites in 300-FF-1 Operable Unit (Excluding the 618-4 Burial Ground), to Include Excavation, Verification, and Backfilling, will not be completed by September 30, 2001. Per regulator request, backfill/regrade in the 300 Area is being deferred until a Kd uranium leachability study is completed. A Tri-Party Agreement change request was transmitted to the U.S. Environmental Protection Agency (EPA) proposing the completion date be revised to September 30, 2003. EPA disapproved the change request on June 20. Negotiations are proceeding with resolution expected by August 31.

Total Tri-Party Agreement Milestones Due in FY01					
Total Planned Through July	12				
Total Completed Through July (includes one completed FY02 milestone)	15				

Remaining Tri-Party Agreement Milestones to be Completed in FY01	1
Forecast Ahead of Schedule	0
Forecast On Schedule	0
Forecast Unrecoverable	1



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## **MAJOR COMMITMENTS continued:**

## **EM Corporate Performance Measures:**

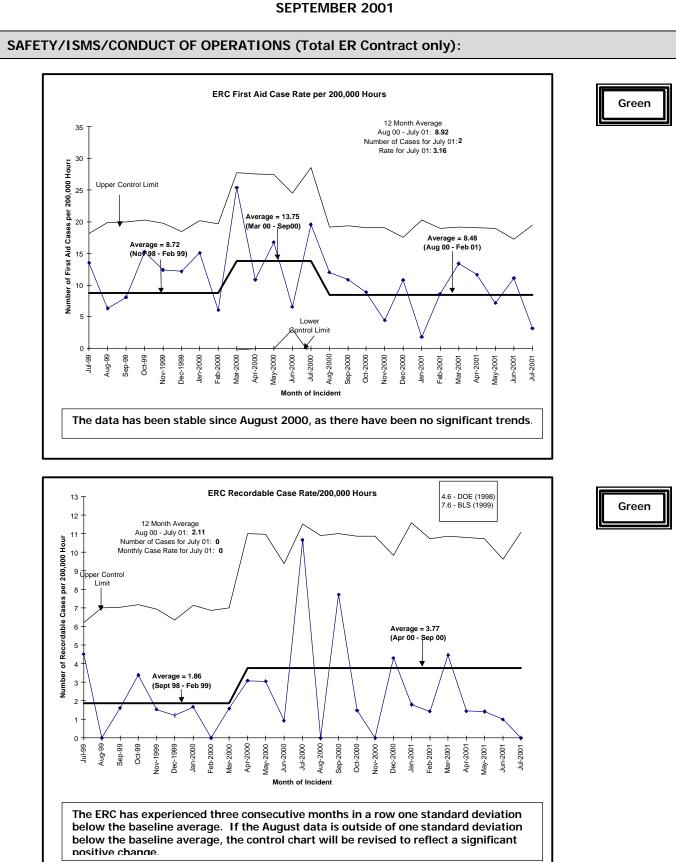
	DWP FY01	FY01 Mgmt Commitments	Current Baseline	Completed YTD
Waste Site Excavations	12	12	18	10
Technology Deployments	0	5	9	9



## **EM Management Commitment:**

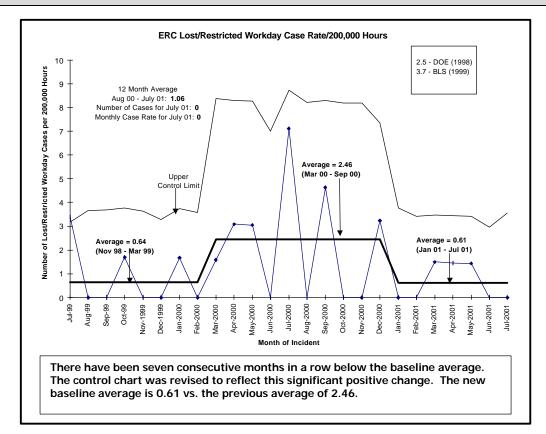
The Environmental Restoration (ER) Project had one FY01 management commitment milestone, which has been achieved. The management commitment, "Install Four Additional Wells at SST WMA" by September 30, was met on April 2, when installation of five wells was completed.





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## SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract only) continued:



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## SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract only) continued:

The following actions have or are being taken by the ERC to focus on safety improvement:

- BHI has developed a Medical Case Management desktop instruction for ERC managers, supervisors, and safety representatives. The purpose is to provide consistent management of occupational and non-occupational injuries and illnesses. Medical Case Management desktop instruction training began Wednesday, August 22, for Field Support superintendents and supervisors. BHI Safety personnel will visit the projects to provide the training to ERC managers and supervisors.
- BHI has formed a Senior Incident Review Board chaired by the Vice President of Operations, which will meet monthly to review selected incidents. This review board will ensure that the ERC has correctly and thoroughly determined the cause of the incidents and identified correctable opportunities. In addition, lessons learned based on these incidents will be used to prevent future occurrences.
- All accidents are thoroughly investigated. Emphasis is placed on causes and corrective actions that can be implemented where applicable. Timely discussions are expected to take place in safety meetings and plan of the days (PODs). When investigations have been completed, the results of each investigation are sent to the Area Superintendents, Field Superintendents and Supervisors to review at the PODs.
- Continue to look for trends and consult with corporate and other Bechtel National, Inc. (BNI) contacts for ways to enhance performance.
- BHI has been working closely with the Hanford Atomic Metal Trades Council (HAMTC) Safety Representative to resolve safety issues as they arise.
- Senior management continues to meet with small groups of employees in the field to discuss safety and personal commitment.
- The Field Support General Superintendent and Project Safety Manager continues to visit different projects on a regular basis, meet with project team members, and conduct a safety walk around. Information from the walk around is shared with the team and other Field Support personnel. Safety conditions requiring corrective action are assigned to project personnel or support personnel for action and are tracked to closure. This activity is ongoing.



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## SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract only) continued:

	FYTD	Current Period (6/25/01- 7/22/01)	Current Period Comments	_
First Aid	66	2	(2) pain	
OSHA Recordable	14	0	N/A	Green
Restricted Workday Case	2	0	N/A	
Lost Workday Case	5	0	N/A	

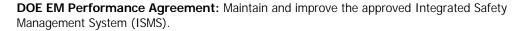
The ERC, as of August 18, 2001, reports approximately 373,110 hours since the last lost work day incident. The last incident occurred on May 7, 2001 and became a lost time on May 31, 2001.



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## SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract only) continued:

#### ISMS:



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#### Status:

- BHI-01550, the Bechtel Hanford, Inc. Integrated ES&H Management System Performance Objectives, Measures and Indicators Process document was submitted to RL.
- Work started on the review and revision of BHI-01199, Integrated Environment, Safety, and Health Management Description. The document is scheduled for submittal to RL for review and approval by October 1, 2001.
- The Six Sigma Process Improvement Process (PIP) team that is reviewing the ERC procedure development/revision process, finished evaluating data and finalized recommendations. Implementation of the recommendations began August 1, 2001.
- Implementation of the new hazard identification and analysis process continued. The team continues to collect data and is assessing the workflow through the Job Hazards Analysis system.
- Several sections in BHI-SH-05, Industrial Hygiene Work Instructions, were revised as part of an effort by the ERC Industrial Hygiene Field Support Facility to obtain American Industrial Hygiene Association (AIHA) accreditation for asbestos fiber counting. Having accredited in-house capability for fiber counting will facilitate asbestos remediation efforts and provide a valuable tool to better evaluate and control worker exposure.

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## SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract only) continued:

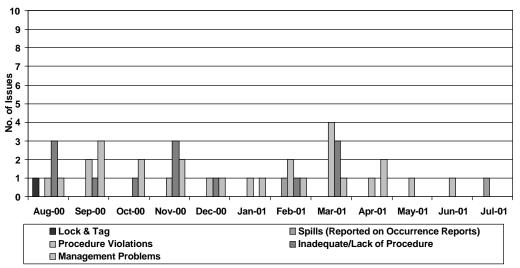
## Conduct of Ops:

## ERC-CATS (Corrective Action Tracking System) Trend Data 8/1/00 through 7/31/01

	Aug-00	Sep-00	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Apr-01	May-01	Jun-01	Jul-01
Lock & Tag	1	0	0	0	0	0	0	0	0	0	0	0
Spills (Reported on Occurrence												
Reports)	0	0	0	0	0	0	1	0	0	0	0	1
Procedure Violations	1	2	0	1	1	1	2	4	1	1	*1	0
Inadequate/Lack of Procedure	3	1	1	3	1	0	1	**3	0	0	0	0
Management Problems	1	3	2	2	1	1	1	1	2	0	0	0

<sup>\*</sup> Trend data not received until July 2001.

<sup>\*\*</sup> Trend data not received for two items until July 2001



Each potential trend is reviewed and evaluated for impact on the project, and then given the appropriate level of attention based on a graded approach.

## July Conduct of Operations Issues:

#### **Spills Reported on Occurrence Reports:**

**Condition Description:** On May 10, 2001, a Bechtel Hanford, Inc. (BHI) subcontractor was excavating the 600-23 Burial Site. The subcontractor unearthed an unknown piece of equipment with an engine and a liquid reservoir. Approximately ten gallons of oily substance was released to the ground from this reservoir. The equipment was placed on plastic within a burmed area, the affected soils were excavated and placed in containers. A sample of the oil saturated soil was sent to the laboratory for analysis. On July 2, 2001, BHI evaluated the results of the analysis, which revealed the presence of polychlorinated biphenyls (PCBs) in the spilled material. BHI estimates that approximately 2.6 pounds of PCBs were released to the soil. This is in excess of the CERCLA reportable quantity. Notifications were made to the appropriate regulatory agencies and DOE. The containerized soil and equipment were permanently disposed of at ERDF, which is authorized to accept this type of waste material.

**Corrective Action Plan:** This event was not immediately recognized by site personnel as a potential spill of hazardous material. This incident highlighted the need to ensure site personnel have the necessary spill reporting training, which will allow early detection and recognition of a reportable spill. Future remediation projects will have appropriate project personnel training in the spill reporting/response requirements and this training will be documented in the appropriate training database.



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## SAFETY/ISMS/CONDUCT OF OPERATIONS (Total ER Contract only) continued:

**Previous Conduct of Operations Issues Reported in July:** 

#### **Procedure Problem:**

## **Condition Description:**

- 1.) A BHI D&D worker was removing transite panels at 105-D. Since the panels contain asbestos, the worker was wearing a powered air purifying respirator (PAPR). The worker noted the face piece was fogging up. The worker asked another worker to check the PAPR blower unit. The second worker noted the unit was barely working, which resulted in significantly reduced airflow. The workers immediately exited the area. The initial indication was the battery was losing its charge, which caused the blower unit to produce reduced air volume.
- 2.) A D&D worker was working on the fourth floor of the 233-S building, removing conduit. The area is a High Contamination Area/Airborne Radiation Area (HCA/ARA) and the worker was wearing a PAPR unit. The worker noted the face piece was fogging up and called the supervisor over to check the PAPR blower unit. The supervisor noted the unit had shut down and tried the battery switch. The unit did not start and the worker was directed to exit the area. This initial evaluation of this incident also points to a battery failure.

#### **Corrective Action Plan:**

- 1.) Provide interpretation to Industrial Hygiene (IH) Technicians on the requirements of the procedure for battery testing and discarding.
- 2.) Revise the IH procedure to require the removal of any battery from service at three years of age or that tests at 4.4V under load twice during service life.

**Condition Description:** The transport of containers was halted between 100NR-1 and the Environmental Restoration Disposal Facility (ERDF) due to evidence of loss of control of contamination. The tailgates on the drag on/off containers are showing up at the 100NR-1 container staging area with removable contamination levels in excess of Appendix "D" values of 10 CFR 835. Additionally, a small spot of fixed contamination was detected on the ERDF container storage pad (RMSA), in the area where 100-N Crib containers were being stored. It is suspected that this fixed contamination originated from the tailgate(s) of the container(s).

Corrective Action Plan: The spot of contamination was immediately posted and the container queue was then thoroughly surveyed, confirming this was the only contaminated spot. In the future, daily surveys of the portion of the ERDF queue that is used to store containers from 100-N will be conducted in the contaminated spot that was removed from the surface of the concrete. At 100-N the container queue was thoroughly surveyed. Contaminated spots were removed in the vicinity of tailgates for several containers. The contaminated spots were immediately posted as a Contamination Areas and red cones were placed in front of the containers to indicate that maintenance was required prior to placing the containers is use. The contaminated material was subsequently removed during the week of January 29, 2001. 1.) Wash out the interior surfaces of all containers being used for transport of 100-N Crib remediation wastes. 2.) Inspect tailgate seals of all containers being used for transport of 100-N Crib remediation wastes and repair/replace as necessary. 3.) Provide training to personnel that dump the containers at ERDF on inspection of tailgate seals and proper closing/tightening of the tailgate latched. 4.) Develop and implement inspection programs at ERDF and 100-N to ensure there is no water in empty containers prior to installing liners and loading wastes. 5.) Fully survey the exterior surfaces of all empty 100-N containers after dumping. Readings in excess of 1.0 mRem/hr on contact, indicate residual internal contamination. All such containers will be washed out at ERDF before being returned to service.

Green

Green

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#### **Procedure Violation:**

Condition Description: Two BHI subcontract employees were assisting with lay down of a casing section that had just been pulled from a groundwater well. The top of the casing was fastened by two shackles connected to two nylon slings that were attached to the main line of the pump truck. The employees were attempting to position the casing on the forks of a forklift when the casing rotated, pinching one employee's finger between the casing and a shackle. The employee sustained a bursting contusion injury to the tip of the left hand little finger.

Corrective Action Plan: Subcontractor management and BHI emphasized to the

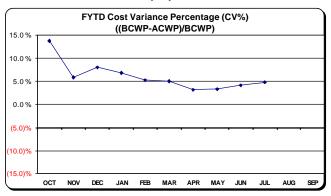


drilling crew that shortcuts will not be tolerated and that safety takes precedence over schedule. Subcontractor management also reiterated the correct method of moving casing and received agreement from the drilling crew to operate that way.	Green
REGULATORY/EXTERNAL/DOE-RL & HQ ISSUES AND REQUESTS:	
Refer to individual Project issues in the following Section B and Section C.	

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## TOTAL COST/SCHEDULE OVERVIEW (Total ER Contract incl. RL/PNNL):

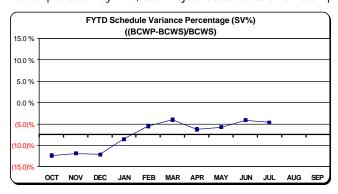
## FY01 PERFORMANCE FYTD JULY 2001 (\$K)



Target performance is better than -5.0%.

	ОСТ	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Out-Year FCST
					CURRE	NT PERIC	D						
ACWP	9,656	10,998	11,610	12,274	13,040	12,559	14,963	13,102	12,815	13,323			
BCWP	11,195	10,749	13,140	12,755	12,916	13,101	14,098	13,660	14,262	14,805			
					FISCAL Y	EAR TO D	ATE						
ACWP	9,656	20,654	32,264	44,538	57,578	70,137	85,100	98,202	111,017	124,339			
BCWP	11,195	21,944	35,085	47,839	60,755	73,856	87,955	101,614	115,876	130,681			
CV	1,539	1,290	2,820	3,301	3,177	3,720	2,855	3,412	4,860	6,342			
CV%	13.7%	5.9%	8.0%	6.9%	5.2%	5.0%	3.2%	3.4%	4.2%	4.9%			
EAC (Cumulative)	9,656	20,654	32,264	44,538	57,578	70,137	85,100	98,202	111,017	124,339	140,215	158,302	162,180

For variance explanation by PBS, see Project Status Section of each project.



Target performance is better than -7.5%.

	1											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
DWP	11,110	10,286	12,233	10,282	10,058	11,813	14,703	11,619	11,559	13,381	11,497	13,404
DWP (Accum)	11,110	21,396	33,629	43,911	53,968	65,781	80,484	92,103	103,662	117,043	128,540	141,944
				CUR	RENT PER	IOD						
BCWS	12,782	12,103	15,015	12,418	12,003	12,656	16,859	13,957	13,038	16,158	14,414	16,405
BCWP	11,195	10,749	13,140	12,755	12,916	13,101	14,098	13,660	14,262	14,805		
				FISCA	L YEAR TO	DATE						
BCWS	12,782	24,885	39,900	52,318	64,322	76,977	93,836	107,793	120,831	136,989	151,402	167,808
BCWP	11,195	21,944	35,085	47,839	60,755	73,856	87,955	101,614	115,876	130,681		
sv	(1,587)	(2,940)	(4,815)	(4,479)	(3,566)	(3,121)	(5,882)	(6,179)	(4,955)	(6,307)		
sv%	-12.4%	-11.8%	-12.1%	-8.6%	-5.5%	-4.1%	-6.3%	-5.7%	-4.1%	-4.6%		

For variance explanation by PBS, see Project Status Section of each project.



Green

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## TOTAL COST/SCHEDULE OVERVIEW (Total ER Contract incl. RL/PNNL) continued:

## FY01 PERFORMANCE FYTD JULY 2001 (\$K)

						Υ	ΓD	Υ	ΓD	
	FY01 DWP	CURRENT		FYTD		SCHEDULE	VARIANCE	COST V	ARIANCE	
	BCWS	BCWS	BCWS	BCWP	ACWP	\$	%	\$	%	EAC
ER01 100 Area R/A	29617	30595	24718	24643	22751	-75	-0.3%	1892	7.7%	28815
ER03 300 Area R/A	4127	2540	1973	1697	1534	-276	-14.0%	163	9.6%	2410
ER04 ER Waste	17420	18801	15467	15528	14883	61	0.4%	645	4.2%	18208
RA-Subtotal	51164	51936	42158	41868	39168	-290	-0.7%	2700	6.4%	49433
ER02 200 Area R/A	443	4188	3214	2553	2112	-661	-20.6%	441	17.3%	3900
ER08 GW Management	24942	31143	25133	22973	22151	-2160	-8.6%	822	3.6%	30347
VZ01 GW/VZ	10833	10998	9656	8474	7822	-1182	-12.2%	652	7.7%	10552
GW/VZ-Subtotal	36218	46330	38004	34000	32085	-4004	-10.5%	1915	5.6%	44799
ER06 ISS	2065	12608	10126			-87	-0.9%	364	3.6%	12420
ER06 233-S	5130	6363	5192	4955	5651	-237	-4.6%	-696	-14.0%	7077
DD-Subtotal	7195	18971	15318	14994	15326	-324	-2.1%	-332	-2.2%	19497
ER05 S&M	13024	13686	11693	11501	10555	-192	-1.6%	946	8.2%	12604
ER07 Long-Term S&M	59	59	37	42	14	5	13.5%		66.7%	30
SM-Subtotal	13083	13745	11730	11543	10569	-187	-1.6%	974	8.4%	12634
ER10 ERC PM&S	28984	31217	24997	24542	23457	-455	-1.8%	1085	4.4%	30207
ER10 RL PM&S	5300	5611	4784	3734	3734	-1050	-21.9%	0	0.0%	5611
PM-Subtotal	34284	36828	29781	28276	27191	-1505	-5.1%	1085	3.8%	35818
GRAND TOTAL	141944	167810	136990	130681	124339	-6309	-4.6%	6342	4.9%	162181



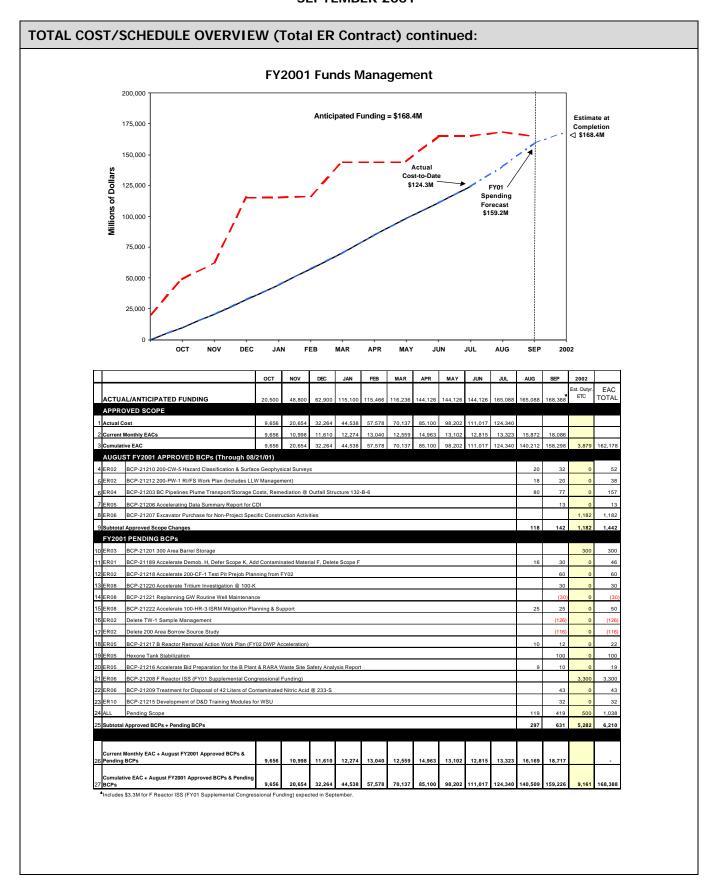
#### **Cost Variance Summary**

At the end of July, the ER Project had performed \$130.7M worth of work, at a cost of \$124.3M. This results in a favorable cost variance of \$6.3M (+4.9%). The positive cost variance is attributed to less labor required due to sharing resources between 100 D and 100 B/C Area remediation efforts, less labor required to complete remediation cleanup verification packages (CVPs) due to the use of a streamlined format and consolidation of waste sites, ERDF transporting additional waste volumes using existing resources, underruns in GW/VZ monitoring and sampling, fewer resources required to perform GW/VZ conceptual model and S&T tasks, 200 Area general S&M tasks and herbicide application costs less than planned, and program management support to field operations using fewer resources than planned.

## **Schedule Variance Summary**

Through July, the ER Project is \$6.3M (-4.6%) behind schedule. The negative schedule variance is attributed to delays in 200-TW-2 Operable Unit drive casing installation and borehole drilling activities, waste shipments from RCRA wells placed on hold pending disposition resolution, well decommissioning delays due to extended well document search/selection, delays in groundwater monitoring and maintenance activities, testing for System Assessment Capability (SAC) history matching taking longer than planned, GW/VZ soil inventory task delayed due to resource unavailability, and late billings for site-wide assessments.

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## **PERFORMANCE OBJECTIVES:**

Refer to individual Project information in the following Section B and Section C.

## **KEY INTEGRATION ACTIVITIES:**

#### **RIVER CORRIDOR:**

Demolition of the 384 Oil Bunker Tank (300 Area) was completed on July 17, including demobilization.

Green

A work order was issued by Pacific Northwest National Laboratory (PNNL) to prepare an estimate for the 331-B building demolition workscope in the 300 Area.

An estimate was completed for Fluor Hanford (FH) on July 31 for the 303-K building demolition, also located in the 300 Area.

The ERC RadCon organization presented a technical seminar to the Hanford Site's health physicists on the "Advanced Characterization System Deployments and Lessons Learned."

#### **CENTRAL PLATEAU:**

On July 11, drilling was initiated for the calendar year 2001 (CY01) RCRA well installations. Eleven wells are planned for installation by December 31, 2001. The first six wells will be installed in support of the Office of River Protection (ORP).

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## **UPCOMING PLANNED KEY EVENTS:**

#### RIVER CORRIDOR:

Green

Tri-Party Agreement Milestone M-16-00F, Establish Date for Completion of All 100 Area Remedial Actions, due December 31.

### **CENTRAL PLATEAU:**

Tri-Party Agreement Milestone M-15-42A, Complete 200-TW-2 Operable Unit Field Work Through Drilling and Sample Collection, due October 31.

Tri-Party Agreement Milestone M-13-26, Submit Plutonium/Organic-Rich Process Waste Group (200-PW-1) Work Plan, due December 31.

Tri-Party Agreement Milestone M-13-00L, Submit 3 200 NPL RI/FS (RFI/CMS) Work Plans, due December 31.

Tri-Party Agreement Milestone M-16-27B, Complete 100-HR-3 Phase II, ISRM Barrier Emplacement (Planning, Well Installation, and Barrier Emplacement), due December 31.

Tri-Party Agreement Milestone M-24-51, Install Three (3) Additional Wells at SST WMA B-BX-BY, due December 31.

Tri-Party Agreement Milestone M-24-52, Install Three (3) Additional Wells at SST WMA U, due December 31.

Tri-Party Agreement Milestone M-24-53, Install Two (2) Additional Wells at SST WMA TX-TY, due December 31.

Tri-Party Agreement Milestone M-24-54, Install One (1) Additional Well at SST WMA T, due December 31.

Tri-Party Agreement Milestone M-24-55, Install Two (2) Additional Wells at SST WMA S-SX, due December 31.

Tri-Party Agreement Milestone M-24-00M, Install RCRA Groundwater Monitoring Wells at Rate of Up to 50 in Calendar Year 2001 if Required, due December 31.

# Environmental Management Performance Report

## September 2001

# Section B - River Corridor Information

- Remedial Action and Waste Disposal Project
- Decommissioning Projects (Interim Safe Storage and 233-S)
- Program Management and Support



Demolition of D Reactor Supply Fan Rooms and Seal Pit



Excavation to Expose 116-N-3 Pipeline for Demolition and Removal



Vessel L-3 Removal at 233-S



Demolition of 132-B-6 Outfall Structure

Focused on Progress... Focused on Outcomes!

Financial/Performance Measures data as of month-end July. All other data as of August 23 (unless otherwise noted).





# Remedial Action and Waste Disposal Project (RAWD)

SEPTEMBER 2001

## SECTION B – RESTORING THE RIVER CORRIDOR

Financial / Performance Measures data as of month-end July. All other data as of August 23, 2001 (unless otherwise noted).

## Remedial Action & Waste Disposal Project (RAWD):

#### **ACCOMPLISHMENTS: RAWD**

**Environmental Restoration Disposal Facility (ERDF) Transportation and Operations:** 

On July 2, ERDF marked its five-year anniversary of disposal operations while also observing receipt of 2,721,540 metric tons (3,000,000 tons) of contaminated waste without a lost-time accident. Since project inception in 1996, the ERDF transportation team has also driven 8,445,641 kilometers (5,249,000 miles) without an at-fault accident.

During July, shipments totaling 42,152 metric tons (46,465 tons) of contaminated waste were transported to ERDF. 456,244 metric tons (502,926 tons) of waste have been disposed in FY01, which is about 2% ahead of the plan. To date, a total of 2,763,006 metric tons (3,045,709 tons) of material have been disposed in ERDF.

100 B/C Area Remediation: During July, excavation was completed for concrete pipelines #1 (1-meter [36-inch]), #2 (1.1-meter [42-inch]), and #8 (1.8-meter [72-inch]). Trench cleanup continued for pipeline #3 (1.2-meter [48-inch] concrete) and pipeline #4 (1.5-meter [60-inch] steel). Excavation of river outfall structure 116-B-7 was completed, and excavation activities are progressing for outfall structures 132-B-6 and 132-C-2.

**100 F Area Remediation:** Excavation continued at the 116-F-2 Trench plumes, UPR-100-F-2 basin leak, and the 100-F-19 pipelines and plumes in the 100 F Area. The 100 F Area remediation contractor ceased operations in July (non-Hanford related issues). An interim subcontractor mobilized equipment to supplement the existing infrastructure already on site. A restart readiness assessment checklist was completed, and excavation resumed on July 16. A Request for Proposal (RFP) was issued to pre-qualified bidders for the remaining workscope at the Group 4 (F, H, and K Areas) reactor areas. The contract will be awarded by the end of September.

**100 H Area Remediation:** Backfill operations were completed at the 100 H Area on July 19 (more than two months ahead of schedule), which satisfies *Tri-Party Agreement* Milestone M-16-26C, "Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit as Defined in Remedial Design Report/Remedial Action Work Plan for the 100 Area," due September 30.

100 N Area Remediation: Demolition, size reduction, and excavation activities were completed during July on the 116-N-3 bypass structure. The remaining contaminated water from the 116-N-3 pipelines and 1312-N inlet structure weir box was pumped out and shipped to the Effluent Treatment Facility (ETF). Following completion of water removal, demolition activities began at the 1312-N inlet structure, 1327-N valve house, and 1316-N valve house.

Overburden was removed and nearly one-half of the 116-N-3 pipeline was exposed prior to removal and size reduction activities. The pipe metal was found to be soft enough to crush the pipe flat with the excavator. Preliminary assessments indicate that longitudinal cutting of the pipe may not be required to meet ERDF waste acceptance criteria. The pipe will be mechanically sheared into sections for shipping to ERDF.

Installation of the export water line support bridge will no be required since the regulators approved leaving the trench cover panels supporting the export water line in place until it is decommissioned and removed in the future. The regulators also determined that removal of the cover panels is not required by the Resource Conservation and Recovery Act of 1976 (RCRA) permit, and therefore a permit modification is not necessary.

Green

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## **ACCOMPLISHMENTS continued: RAWD**

**300 Area Remediation:** During July, uranium oxide drum sampling was completed at the 618-4 Burial Ground with a total of 54 drums sampled. Six of the drums that had been considered oxide drums turned out to contain uranium chips and oil. Other drum maintenance activities consisted of adjusting oil levels in the uranium chip drums, along with placement of weather caps on the metal drums to prevent rainwater from collecting on the drums. Four drums were placed in new overpacks.

Grading activities were completed to provide cover over a portion of the South Process Pond water lines. Based on completion of this work, as-built drawings can be completed and submitted to Fluor Hanford (FH).

Meetings continued with the U.S. Environmental Protection Agency (EPA) to discuss the pending Tri-Party Agreement Milestone M-16-03E change request regarding backfill completion for landfills 1A, 1B, 1D, and the South Process Pond, all located in the 300 Area.

**300/600 Area Remediation:** Sampling was performed to address a polychlorinated biphenyl (PCB) issue associated with equipment removed from the southwest portion of the 600-23 waste site. Further sample analysis results verified PCB contamination levels of the final excavation elevation were nondetectable. Soil associated with sampling activities, and the 17 drums of oil-stained soil staged since the completion of site excavation, were shipped to ERDF. All remediation work was completed at 600-23 waste site on July 25, which satisfies Tri-Party Agreement Milestone M-16-41A, "Complete Remedial Action Excavation for J.A. Jones 1 and 600-23 Waste Sites", due July 31.

100/300 Area Design/Assessment: Three documents were transmitted to RL and regulators for review and comment. The documents were: 100 Area Remedial Action Sampling and Analysis Plan (Rev. 3), Remedial Design Report/Remedial Action Work Plan for the 100 Area (Rev. 3), and 100 Area Burial Grounds Sampling and Analysis Plan (Draft A). A meeting was held on July 16 with the regulators to discuss these documents.



#### SAFETY/ISMS/CONDUCT OF OPERATIONS: RAWD

See Executive Summary.

#### BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: RAWD

None identified at this time.

## LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: RAWD

None identified at this time.

## MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): RAWD

#### DOE Secretarial:

None identified at this time.

## • DOE EM Performance Agreement:

None identified at this time.

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## MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS) continued: RAWD

• Tri-Party Agreement Milestones:

Milestone	Description	Due Date	(F)/(A) Date	
M-16-26D	Begin Excavation Activities at 100 B/C Process Effluent Pipelines.	2/28/01	2/26/01 (A)	
M-16-07B	Complete Remediation and Backfill of 22 Liquid Waste Sites and Process Effluent Pipelines in the 100-DR-1 and 100-DR-2 Operable Units as defined in Remedial Design Report/Remedial Action Work Plan for the 100 Area	7/31/01	2/28/01 (A)	Green
M-16-41A	Complete Remedial Action Excavation for JA Jones 1 and 600-23 Waste Sites	7/31/01	7/25/01 (A)	
M-16-26C	Complete Remediation and Backfill of 10 Liquid Waste Sites and Process Effluent Pipelines in the 100-HR-1 Operable Unit as defined in the Remedial Design Report/Remedial Action Work Plan for the 100 Area	9/30/01	7/19/01 (A)	
M-16-03E	Complete Remediation of Waste Sites in 300-FF-1 Operable Unit (excluding the 618-4 Burial Ground), to include Excavation, Verification, and Backfilling	9/30/01	9/30/03 (F)*	Yellow
M-16-26G	Remove filter boxes and complete verification sampling for 100-B-12 waste site	9/30/01	5/31/01 (A)	Green
M-16-00F	Establish Date for Completion of all 100 Area Remedial Actions	12/31/01	12/31/01 (F)**	Yellow
M-16-41B	Submit Cleanup Verification Package (CVP) for JA Jones 1 and 600-23 Waste Sites for EPA Approval	3/31/02	3/31/02 (F)	
M-16-26B	Complete Remediation and Backfill of 51 Liquid Waste Sites in the 100-BC-1/-2, 100-DR-1/-2, and 100-HR-1 OUs and Process Effluent Pipelines in the 100-DR-1/-2, and 100-HR-1 OUs. Complete revegetation of 36 Liquid Waste Sites in the 100-BC-1, 100-DR-1/-2, and 100-HR-1 OUs as defined in the RDR/RAWP for the 100 Area.	3/31/02	3/31/02 (F)	Green

Per regulator request, Kd (partitioning coefficient) study is being performed to determine uranium leachability in the 300 Area. 300-FF-1 backfill will be deferred until leachability concerns are resolved. A Tri-Party Agreement change request was forwarded to EPA on June 11 proposing the completion date be revised to 9/30/03. EPA disapproved the change request on June 20. Negotiations are proceeding with resolution expected by August 31.

<sup>\*\*</sup>Awaiting DOE direction prior to initiating discussions with regulators; 110-day notification required by September 12.

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# MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS) continued: RAWD **DNFSB Commitment:** None identified at this time. PERFORMANCE OBJECTIVES: RAWD Task **Status** RAWD 490,000 Tons by 9/30/01 On schedule. Backfill 16 Sites by 9/30/01 Complete; Notice of Green Completion in preparation. 50,000 Additional Tons by 9/30/01 (Stretch) 100% of Stretch undertaken as of 2/28/01. (\*Detail in Section 6C) CV <5.0%; SV <7.5% for grouped PBS ER01, ER03, ER04

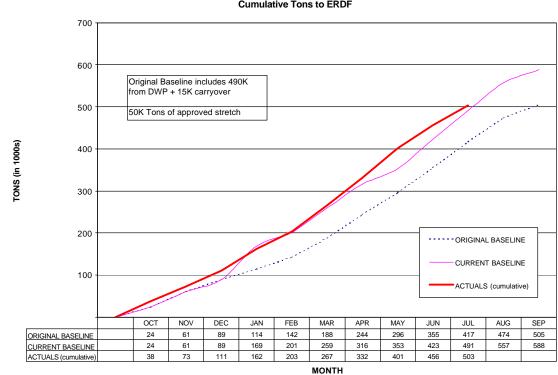
**SEPTEMBER 2001** 

## PERFORMANCE MEASURES/METRICS: RAWD - (River and Plateau)

	DWP FY01	FY01 Mgmt Commitments	Current Baseline (Incl. Baseline Changes)	Completed YTD
Waste Sites Excavated	12	12	18	10



#### **Remedial Action and Waste Disposal Project** Cumulative Tons to ERDF



STRETCH AND SUPERSTRETCH GOALS: RAWD

FY01 RAWD "Stretch" Goals	Approved Tons (K)
Remediate Additional 50K Tons of Contaminated Material by 9/30/01 (1) Additional Contaminated Material at 100-F Pipelines (BCP 21013 approved 11/00) (2) Additional Contaminated Material at 100-H Sites (BCP 21014 approved 11/00) (3) (Additional Contaminated Material at 100-F Sites of 36.4 approved in February) (BCP 21043 approved 2/01)	8.0K 7.5K 34.5K
S/Total Remedial Action Stretch Goals:	50.0K



(\*through August 29)

**SEPTEMBER 2001** 

#### STRETCH AND SUPERSTRETCH GOALS continued: RAWD

FY01 RAWD "Superstretch" Goals	Approved BCPs (K)	
*Complete Remediation of 60 Square Miles of Hanford Site: (1) Complete Remediation of J.A. Jones Pit #1 and 600-23	\$1640.9K	Green
S/Total Remedial Action Superstretch Goals:	\$1640.9K	

<sup>\*</sup>Carried over from FY00. Work complete; Notice of Completion submitted on 8/7/01.

## PROJECT STATUS (COST/SCHEDULE): RAWD

#### Schedule:

Remedial Action & Waste Disposal Project	BCWS	BCWP	Variance	
Remediai Action & Waste Disposal Floject	\$K	\$K	\$K	1
ER01				)
100 Area Remedial Actions	24,718	24,643	(75)	
ER03				
300 Area Remedial Actions	1,973	1,697	(276)	Green
ER04				
ER Waste Disposal	15,467	15,528	61	
TOTAL Remedial Actions	42,158	41,868	(290)	J

## PBS-ER01 - 100 Area Remedial Action

Schedule Variance = (\$75K); (0.3%) [Last Month: \$936K; 4.3%]

Cause: Pipeline excavation activities at 100-FR are behind schedule due to subcontractor termination; additional work on plumes; offset by backfill activities at 100-HR-1 and excavation at 100-BC-1 being ahead of schedule due to subcontractors maximizing equipment usage and coordination of resources between sites.

**Resolution:** None required; will monitor.

#### PBS-ER03 - 300 Area Remedial Action

Schedule Variance = (\$276K); (14.0%) [Last Month: (\$370K); (20.5%)]

Cause: Delays in the 300-FF-1 remediation contract closeout and 300-FF-2 Kd leachability study.

**Resolution:** Subcontractor is reviewing options and subcontract waste stream disposal is being studied; Kd leachability study activities will be performed concurrently, compressing the schedule.

## PBS-ER04 - Environmental Restoration Waste Disposal

Schedule Variance = **\$61K**; **0.4%** [Last Month: \$269K; 2.0%]

**Cause:** More waste was transported than planned due to additional plume quantities allowing for reduced unit costs.

Resolution: None required.

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#### PROJECT STATUS (COST/SCHEDULE) continued: RAWD

#### Cost:

Remedial Action & Waste Disposal Project	FY01	BCWP	ACWP	Variance	
Remedial Action & Waste Disposal Froject	EAC	\$K	\$K	\$K	
ER01					)
100 Area Remedial Actions	28,815	24,643	22,751	1,892	
ER03					
300 Area Remedial Actions	2,410	1,697	1,534	163	Green
ER04					
ER Waste Disposal	18,208	15,528	14,883	645	
TOTAL Remedial Actions	49,433	41,868	39,168	2,700	J

#### PBS-ER01 - 100 Area Remedial Action

Cost Variance = **\$1892K**; **7.7%** [Last Month: \$2157K; 9.5%]

Cause: Less labor was required due to sharing DR site non-manual resources with the 100-BC work scope needs, shifting of personnel to other waste sites, less design and supervision required; DR backfill was completed six weeks early; material costs at 100-BC-1 have not been incurred as planned.

Resolution: Reflected in the EAC.

Cause: Cleanup Verification Packages (CVPs) continue to require less labor than anticipated to prepare due to the use of a "streamlined" format and the consolidation of waste sites. Estimated completion costs for the lead brick survey have been reduced to reflect actual charges.

Resolution: Reflected in the EAC.

Cause: 100 Area Burial Ground Design costs were less than planned due to fewer drawings being required; less effort required to prepare the SAP due to consorted efforts in the DQO process. Savings were offset by an overrun at 100-NR-1 due to impacts of contamination levels and control issues.

**Resolution:** Reflected in the EAC.

### PBS-ER03 - 300 Area Remedial Action

Cost Variance = \$163K; 9.6% [Last Month: \$116K; 8.1%]

Cause: Coordination of 300-FF-2 and 100 Area Burial Grounds design efforts has resulted in savings; Pacific Northwest National Laboratory (PNNL) staff and subject experts were utilized on the 618-10/11 Engineering Study Historical Research with recommendations resulting in additional savings.

Resolution: Reflected in the EAC.

## PBS-ER04 - Environmental Restoration Waste Disposal

Cost Variance = **\$645K**; **4.2%** [Last Month: \$722K; 5.1%]

Cause: Transported additional waste volumes from plumes utilizing existing resources.

Resolution: Reflected in the EAC.

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#### **REGULATORY ISSUES: RAWD**

Tri-Party Agreement Milestone M-16-03E: M-16-03E, "Complete Remediation of Waste Sites in 300-FF-1 Operable Unit (excluding the 618-4 Burial Ground), to Include Excavation, Verification, and Backfilling", due September 30, 2001 will be missed due to the U.S. Environmental Protection Agency (EPA) requirement to perform a partitioning coefficient (Kd) study on uranium leachability. Regrading will not be completed until study results confirm that no further excavations will be required.



Status: The EPA requested a Kd study be performed to address uranium mobility in the 300 Area. This study consists of obtaining uranium-contaminated samples, and performing leach rates with follow-on absorption tests, resulting in a Kd value. A data quality objective (DQO) was completed, and a baseline change proposal (BCP) was prepared to secure funding for the study. The study was initiated in March, and will be completed in FY02. A *Tri-Party Agreement* change package was transmitted to the regulators on June 11, proposing the date be revised to September 30, 2003. EPA disapproved the change package on June 20. Negotiations are proceeding to resolve this issue by August 31.

Tri-Party Agreement Milestone M-16-03F - 618-4 Burial Ground: It is unlikely that treatment of the 618-4 Burial Ground uranium metal/oil drummed waste can be performed this fiscal year. The treatment technology has been identified, however, the treatment facility startup process is proceeding slower than planned. Currently, it appears that the treatment facility may be unable to receive the uranium metal/oil drummed waste until early FY03. EPA has indicated a need to show continuous progress at 300-FF-1 in FY01, and is also requesting a milestone date be established for excavation of the 618-4 Burial Ground.



Status: A BCP was approved to treat and dispose of the 78 uranium oxide powder drums currently staged in the 618-4 Burial Ground. This workscope will be performed in lieu of initiating treatment of the uranium metal/oil drums in FY01. Adding the 618-4 Burial Ground scope to the revised M-16-03E milestone will require further discussions among the Tri-Party participants. Negotiations are proceeding to resolve this issue by August 31.

Tri-Party Agreement Milestone M-16-00F - Establish Date for Completion of All 100 Area Remedial Actions: This milestone is due on December 31, 2001 and will develop the dates and workscope for any remaining remedial actions in the 100 Area. Currently, most of these remedial actions are in the 100 Area Long Range Plan (miscellaneous pipelines are still being developed). Tri-Party Agreement Major Milestone M-16-00 compliance date is September 30, 2018. In addition, Tri-Party Agreement Milestones M-93-14 / M-93-15 (Initiate / Complete Negotiation of Remaining Surplus Reactor Disposition Schedules) and potentially M-16-03A (Establish Date for Completion of 300 Area Remedial Actions) will also be addressed in these negotiations.



Status: RL has initiated development of a strategy for negotiation of M-16-00F that includes the River Corridor outcome.

## EXTERNAL ISSUES (i.e. HAB, Congress, etc.): RAWD

None identified at this time.

## DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): RAWD

None identified at this time.

#### INTEGRATION ACTIVITIES: RAWD

None identified at this time.

# **Decommissioning Projects** (D&D)

SEPTEMBER 2001

## SECTION B – RESTORING THE RIVER CORRIDOR

Financial / Performance Measures data as of month-end July. All other data as of August 23, 2001 (unless otherwise noted).

## **Decommissioning Projects (D&D)**

### **ACCOMPLISHMENTS: D&D**

F and DR Reactor Interim Safe Storage (ISS): The F Reactor Fuel Storage Basin (FSB) sampling analysis results were received. Results indicated the lower fill/sludge waste can be designated as nonregulated waste. The Brokk<sup>TM</sup> excavator was used in completing cleanout of the FSB discharge chutes, fuel basket removal and staging, and refilling sampling holes. The Universal Radiation Spectrum Analyzer (URSA) (radiological detector) was deployed in the FSB for the first time on July 19. Radiological gamma spectrums were taken of various items within the FSB, including fuel storage buckets and open sample hole locations.

Fill removal of the transfer pit was completed down to approximately five meters (17 feet).

The F Reactor safe storage enclosure (SSE) 25% roof design was reviewed, and comments were provided to the subcontractor. Design walkdowns were completed for the DR Reactor SSE on July 12, and the 25% roof design was received on July 31.

D and H Reactors ISS: At D Reactor, demolition was initiated on the above-grade structure of the supply fan rooms/seal pit (Area 3) on July 24. Backfill of the valve pit (Area 2) was also started in mid-July. At H Reactor, asbestos removal was completed in the outer rod room and electrical equipment room/ready room (Areas 4 and 5). During July, the D and H Reactor Sampling Analysis Plans (SAPs) were also approved by Ecology with no comments.

233-S Plutonium Concentration Facility Decommissioning Project: July activities that were accomplished in the highly contaminated 233-S facility included the following:

- Completed removal of the L-3 vessel. Through July, six of the eight vessels planned for FY01 have been removed, on or ahead of schedule.
- Commenced L-12 vessel removal.
- Completed ventilation system modification.
- Removed approximately 38 meters (125 feet) of process hood pipe.

#### SAFETY/ISMS/CONDUCT OF OPERATIONS: D&D

See Executive Summary.

## BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: D&D

None identified at this time.

### LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: D&D

None identified at this time.

#### MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): D&D

#### **DOE Secretarial:**

None identified at this time.



**SEPTEMBER 2001** 

## MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS) continued: D&D

## **DOE EM Performance Agreement:**

None identified at this time.

## Tri-Party Agreement Milestones:

Milestone	Description	Due Date	(F)/(A) Date
M-93-12	Issue 105-DR Disposition Competitive Procurement Package for Ascertaining the Most Effective and Efficient Approach to FEIS ROD Selected Alternative Implementation ()	2/28/02	*TBD



## **DNFSB Commitment:**

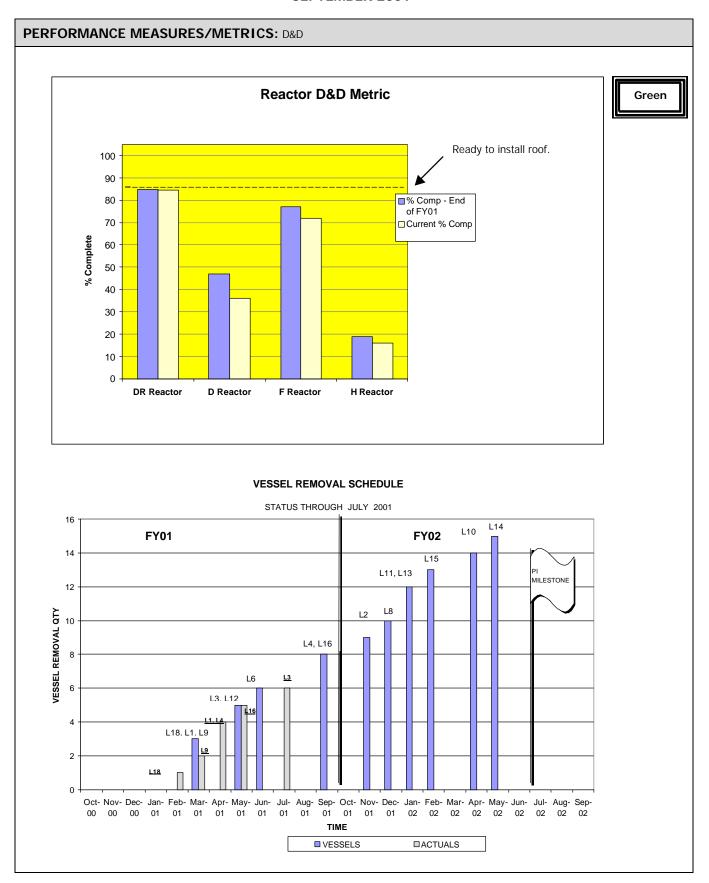
None identified at this time.

### **PERFORMANCE OBJECTIVES: D&D**

PI	Task	Status	
233-S	8 vessels by 6/30/02	Critical path activity on schedule. NDA issue is impacting cost. Currently being reviewed by RL, BHI, and FH.	
	7 additional vessels by 6/30/02     (Stretch)	BCP-21023 approved. Stretch activities in progress and on schedule.	
	CV <5.0%; SV <7.5% for PBS ER-06	(*Detail in Section 6C)	
ISS	<ul> <li>D Reactor Major Tasks by 9/30/01</li> <li>DR Reactor Major Tasks by 9/30/01</li> <li>F Reactor Major Tasks by 9/30/01*</li> <li>H Reactor Major Tasks by 9/30/01</li> </ul> *F Reactor Major Tasks by 9/30/01 *F Reactor major tasks were revised from "by 9/30/01" to "11/30/01" per BCP 21187. CV <5.0%; SV <7.5% for PBS ER-06	Critical path activities on schedule; received authorization funding in December. F Reactor basin fill removal activities have been replanned to accommodate removal of fill in two 15" lifts vs. one 30" lift. Scheduled completion date is now 11/30/01. BCP 21187, with associated PI change justification, was submitted to DOE on June 15. Awaiting formal PI change from K. Klein.	Green

<sup>\*</sup>Regulators have agreed to renegotiate this milestone since DR Reactor ISS is scheduled for completion in FY02. Initial discussions are underway.

**SEPTEMBER 2001** 



**SEPTEMBER 2001** 

## STRETCH AND SUPERSTRETCH GOALS: D&D

FY01 D&D "Stretch" Goals	Approved BCPs (K)
Remove 7 Additional Vessels by 6/30/02 for a total of 15 Vessels (Stretch Only) (BCP 21023 approved 11/00)	\$1,072.0K
S/Total D&D Stretch Goals:	\$1,072.0K



FY01 D&D "Superstretch" Goals	Approved BCPs (K)
*Continue F Reactor Interim Safe Storage	\$1372.4K
S/Total D&D Superstretch Goals:	\$1372.4K



## PROJECT STATUS (COST/SCHEDULE): D&D

#### Schedule:

Decommissioning Projects	BCWS	BCWP	Variance
Decommissioning Projects	\$K	\$K	\$K
ER06			
ISS and Other D&D Projects	10,126	10,039	(87)
ER06			
233-S	5,192	4,955	(237)
TOTAL D&D	15,318	14,994	(324)

### PBS-ER06 - Decontamination and Decommissioning

Schedule Variance = (\$324K); (2.1%) [Last Month: (\$362K); (2.7%)]

Cause: Demolition activities at D Reactor have been delayed due to equipment and resource availability; backfill activities have been delayed due to waiting for regulator approval.

**Resolution:** A detailed schedule has been developed, and equipment and resources have been assigned to complete above grade demolition by the end of September.

Cause: Process Hood vessel removal at the 233-S facility is behind schedule due to difficulty in removing neutron monitors, stringent procedures slowed TRU waste shipments, non-destructive assay (NDA) labor support was not available, and late start of concrete drilling for ventilation modification.

**Resolution:** Selective overtime will continue to be used to recover the schedule; continue to look for better ways to accomplish work safely.

<sup>\*</sup>Carried over from FY00. Completed - Notice of Completion submitted on 5/3/01 and approved on 7/12/01.

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#### PROJECT STATUS (COST/SCHEDULE) continued: D&D

#### Cost:

Decommissioning Projects	FY01	BCWP	ACWP	Variance	
	EAC	\$K	\$K	\$K	1
ER06					<u> </u>
ISS and Other D&D Projects	12,420	10,039	9,675	364	
ER06					Green
233-S	7,077	4,955	5,651	(696)	
TOTAL D&D	19,497	14,994	15,326	(332)	

#### PBS-ER06 - Decontamination and Decommissioning

Cost Variance = (\$332K); (2.2%) [Last Month: (\$415K); (3.2%)]

Cause: Overrun at the F Reactor Fuel Storage Basin (FSB) due to resolving work package issues while work was on hold; and procedural changes resulting in loss in efficiency in removing material from the FSB.

Resolution: Additional costs have been trended.

Cause: Overrun at the 233-S Facility due to PFP calculation error and additional cost resulting from using Canberra for NDA; purchase of Standard Waste Boxes (SWB) and additional tools needed for process hood pipe and vessel removal.

**Resolution:** Overrun has been partially reflected in the EAC.

#### **REGULATORY ISSUES: D&D**

D and H Reactor Impacts of *Tri-Party Agreement* Milestones: The acceleration of the reactor ISS projects is no longer consistent with the current M-93 milestones, especially the competitive procurement and renegotiating milestone (M-93-12) for DR Reactor.



Status: Initial discussions with the regulators have begun. This will need to be discussed as part of RL's 100 Area acceleration vision.

#### EXTERNAL ISSUES (i.e. HAB, Congress, etc.): D&D

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#### DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): D&D

233-S Process Hood: 232 items of nondestructive assay (NDA) information previously provided by Fluor Hanford (FH) Plutonium Finishing Plant (PFP) in final data reports are invalid because of calibration errors that occurred in May 1999.



**Status:** FH PFP provided an initial report indicating the extent of the error. Subsequent to that report FH PFP has reported additional discrepancies which also affect the validity of the data.

Based on preliminary and subsequent information, BHI determined that no authorization basis limits were impacted. Items shipped to ERDF will be assessed to assure proper waste classification. The additional discrepancies that PFP reported have resulted in delays in completing this review.

A BHI schedule identifying actions to address these issues has been provided to EPA. Low level waste (LLW) shipments to ERDF were halted and an approval process has been set up allowing shipments of LLW to be disposed of in ERDF after receiving EPA approval. BHI will complete the assessment of the impact on waste shipments once FH PFP provides a complete description of the magnitude and extent of the errors.

#### **INTEGRATION ACTIVITIES: D&D**

Other Hanford Site Work: Demolition of the 384 Oil Bunker Tank (300 Area) was completed on July 17, including demobilization.



A work order was issued by Pacific Northwest National Laboratory (PNNL) to prepare an estimate for the 331-B building demolition workscope in the 300 Area.

An estimate was completed for Fluor Hanford (FH) on July 31 for the 303-K building demolition, also located in the 300 Area.

# **Program Management and** Support (PM&S)

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# SECTION B – RESTORING THE RIVER CORRIDOR

Financial / Performance Measures data as of month-end July. All other data as of August 23, 2001 (unless otherwise noted).

**Program Management & Support (PM&S)** 

**ACCOMPLISHMENTS: PM&S** 

#### COMPLIANCE, QUALITY, SAFETY, AND HEALTH:

Safety and Health: Support was provided to the HQ Office of Independent Assessment during their assessment of the Hanford Site emergency preparedness.

#### PROGRAM AND PROJECT SUPPORT:

Procurement and Property Management: The ERC continues to meet or exceed socioeconomic contracting goals for FY01. The FY01 socio-economic contractual goals versus actual percentages (through July) are as follows:

Total **Small Business** Goal: 50.0% Actual: 52.7% Small Disadvantaged Business Goal: 6.5% Actual: 19.3% Goal: 3.5% Women-Owned Actual: 5.7%

**External Affairs:** The *Tri-Party Agreement Community Relations Plan* was revised based on comments received at the Tri-Party Agreement Public Involvement officer's meeting. Copies of the draft plan were distributed to RL and the regulators during the July 24 Inter-Agency Management Integration Team (IAMIT) meeting.

#### **ENGINEERING AND TECHNOLOGY:**

Environmental Technologies: During July, a BHI risk assessment coordinator received a National Environmental Excellence Award from the National Association of Environmental Professionals. The award was presented for participation on the DOE Biota Dose Assessment Committee during the development of the graded approach for evaluating radiation doses to aquatic and terrestrial biota.

Technology Applications: ERC Technology Applications personnel developed a highlight video of the Remote Concrete Coring System and provided a copy to the RL Science and Technology Program office.

Design Engineering: Computer system tests were performed in preparation for virtual library operations that will provide access to the Hanford Environmental Information System (HEIS). Two additional virtual library modules are being developed that will provide access to contaminant inventory-related data.

#### **PLANNING AND CONTROLS:**

The draft Hanford site-wide change control procedure was reviewed, and comments were provided to RL. Support also continued in the development of interfaces between the ERC change control process and the RL process.

FY03 budget development efforts included entering/reviewing FY03 budget data in the HQ Integrated Planning, Accountability, and Budgeting System (IPABS). Support continued for various FY02 funding exercises, as requested by RL and HQ. Support was also provided in preparation for the upcoming HQ Environmental Management liability audit.

Green

	SEPTEMBER 2001	
AFETY/ISM	MS/CONDUCT OF OPERATIONS: PM&S	
See Exe	ecutive Summary.	
REAKTHRO	OUGHS/OPPORTUNITIES FOR IMPROVMENT: PM&S	
None id	dentified at this time.	
ONG-TERM	M (6 MONTHS PLUS) IMPORTANT ITEMS: PM&S	
Six Sig	gma:	Green
• Im	plementation of Six Sigma program across the ERC.	Green
	ase II process improvements continue for the <u>Waste Management PIP</u> (PIP#1) which completed in April.	
	ne <u>Radiation Control Instrumentation PIP</u> (PIP#3) is in the "Analyze Phase" and is about 6 complete.	
	ne <u>Contaminated Concrete Demolition PIP</u> (PIP #4) Draft "Business Plan" has been eloped and reviewed with the Master Black Belt	
	HI leads the effort on the <u>NV / RL Waste Management PIP</u> , which is currently in the asure" phase.	
• The	ne business plan and project schedule have been drafted.	
	eetings are scheduled with Hanford and Nevada (DOE and contractor) personnel in Las as on August 28-29, 2001.	
JOR CON	MMITMENTS (FISCAL YEAR PLUS 6 MONTHS): PM&S	
	OE Secretarial: dentified at this time.	
	DE EM Performance Agreement: dentified at this time.	
	ri-Party Agreement Milestones: dentified at this time.	
	NFSB Commitment: dentified at this time.	

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#### PERFORMANCE OBJECTIVES: PM&S **Comprehensive Measures** Comprehensive Task **Status** Measure Reference the Safety The Contractor shall protect worker safety and health, public safety and Section of the Executive Safety health, and the environment. Summary. Migrate systems to facilitate PBS Rebaseline activities completed on 1/10/01. restructuring in FY02 Rebaseline completed per Baseline All other activities on Updating Guidance (BUG) schedule for completion Integrate technology into Projects as planned, however Achieve pollution prevention/waste DWP preparation Operational Excellence minimization activities are being compressed due to delayed receipt of formal planning Green guidance. DOE determined that Management Effectiveness **Customer Satisfaction** BHIs self assessment Effective Financial Management process has programmatic Cost/Price Analysis weaknesses. As a **Effective** result of a senior Leadership management work group, enhancements to the process were completed in July of 2001.

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#### PERFORMANCE MEASURES/METRICS: PM&S

ERC identified five technologies to be deployed during FY01. Through July, nine technologies have been deployed.

Technology Deployment	PBS	(F)/(A) Date	_
Remote Retrieval System (Brokk <sup>™</sup> 330N with appropriate attachments)	RL-ER06	6/01 (A)	
3D Visual and Gamma Imaging System (Gamma Cam)	RL-ER06	2/01 (A)	
In Situ Object Counting System (ISOCS)	RL-ER06	2/01 (A)	
Polyshield SS-100 Fixative	RL-ER01	12/00 (A)	Green
Surveillance and Measurement Model 935	RL-ER01	5/01 (A)	
Ultrasonic Liquid Level Detection	RL-ER06	2/01 (A)	
Guzzler Vacuum Truck	RL-ER03	2/01 (A)	
Laser-Assisted Ranging and Data System	RL-ER06	3/01 (A)	
Compact Remote Console	RL-ER06	6/01 (A)	)

#### STRETCH AND SUPERSTRETCH GOALS: PM&S

**SEPTEMBER 2001** 

#### PROJECT STATUS (COST/SCHEDULE): PM&S

#### Schedule:

Program Management & Support	BCWS	BCWP	Variance	
	\$K	\$K	\$K	1
ER10				)
ERC Program Management & Support	24,997	24,542	(455)	
ER10				Green
RL Program Management & Support	4,784	3,734	(1,050)	
TOTAL PM&S	29,781	28,276	(1,505)	J —

#### PBS-ER10 – Program Management and Support

Schedule Variance = (\$1505K); (5.1%) [Last Month: (\$1344K); (5.1%)]

Cause: ERC performance fee scheduled earlier than booked; offset by shuttle truck

received ahead of schedule.

Resolution: Temporary schedule delay.

Cause: Late billing to RL on site-wide assessments.

**Resolution:** RL is discussing billing/timing with other site contractors/government

agencies.

#### Cost:

Program Management & Support	FY01	BCWP	AWP	Variance
r regram management a support	EAC	\$K	\$K	\$K
ER10				
ERC Program Management & Support	30,207	24,542	23,457	1,085
ER10				
RL Program Management & Support	5,611	3,734	3,734	0
TOTAL PM&S	35,818	28,276	27,191	1,085

#### PBS-ER10 - Program Management and Support

Cost Variance = \$1085K; 3.8% [Last Month: \$849K; 3.4%]

Cause: Records and Document Control, Procurement, Design Engineering, and Sample and Data Management support needs were less than anticipated.

Resolution: Underrun has been trended and is reflected in the EAC.

#### **REGULATORY ISSUES: PM&S**

None identified at this time.

#### EXTERNAL ISSUES (i.e. HAB, Congress, etc.): PM&S

None identified at this time.

#### DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): PM&S

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INTEGRATION ACTIVITIES: PM&S	
<b>Safety and Health:</b> The ERC RadCon organization presented a technical seminar to the Hanford Site's health physicists on the "Advanced Characterization System Deployments and Lessons Learned."	Green

# Environmental Management Performance Report

# September 2001

# Section C - Central Plateau Information

- Groundwater/Vadose Zone Integration Project
- Surveillance/Maintenance & Transition Projects



Before Asbestos Abatement Removal at 224-U



After Asbestos Abatement Removal at 224-U



Preparing for Cement Grouting During Well Decommissioning

# Focused on Progress... Focused on Outcomes!

Financial/Performance Measures data as of month-end July. All other data as of August 23 (unless otherwise noted).





# Groundwater/Vadose Zone Integration Project (GW/VZ)

SEPTEMBER 2001

# SECTION C - TRANSITIONING THE CENTRAL PLATEAU

Financial / Performance Measures data as of month-end July. All other data as of August 23, 2001 (unless otherwise noted).

**Groundwater/Vadose Zone Integration Project(GW/VZ):** 

ACCOMPLISHMENTS: GW/VZ

#### **GW/VZ INTEGRATION PROJECT:**

**Science and Technology (S&T):** A paper was presented on long-term surface barrier technology issues at a National Academy of Science (NAS) workshop held in July. The NAS also completed their review of the S&T portion of the Hanford Site Integration Project. The S&T program earned marks from the 18-month review by the National Research Council, which is part of the NAS. A formal report, *Science and Technology for Environmental Cleanup at Hanford*, was issued in early August.

**Public Involvement:** The semi-annual congressional report was completed and distributed to HQ.

#### **GROUNDWATER MANAGEMENT:**

**Remediation:** Groundwater monitoring well installation was completed at the 200-UP-1 groundwater operable unit. A design package was also initiated for *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) Five-Year Review system upgrades at 100-HR-3, 100-KR-4, and 200-UP-1 groundwater operable units.

**In Situ Redox Manipulation (ISRM) Project:** Through July, 17 of 28 FY01 well injections were completed for ISRM barrier emplacements. An ISRM mitigation plan was issued to RL for review on August 3, 2001.

**Well Decommissioning:** Decommissioning was completed for all 90 wells as planned for FY01.

**Carbon Tetrachloride Investigation:** The sampling and analysis plan (SAP) was approved by the regulators and RL for the carbon tetrachloride investigation. The drilling contract was awarded for the Plutonium Finishing Plant (PFP) well.

**Tritium Investigation:** The drilling contract was awarded for the boreholes in support of the 618-11 Burial Ground tritium investigation. Sampling and well drilling activities were initiated in early August.

**Summary of Five Pump and Treat Systems:** All groundwater pump and treat systems operated above the planned 90% availability levels in July. Since system inception, the five pump and treat systems have processed over 5 billion liters of groundwater, removing approximately 5,664 kilograms of carbon tetrachloride, 253 kilograms of chromium, and 1.06 curies of strontium. Approximately 965 million liters of groundwater have been processed in FY01, removing approximately 1082 kilograms of carbon tetrachloride, 59 kilograms of chromium, and 0.172 curies of strontium.

**200-ZP-2 Vapor Extraction System:** Approximately 317 million liters of vapor were processed through the 200-ZP-2 soil vapor extraction system during July, removing 100 kilograms of carbon tetrachloride. 1.7 billion liters have been processed in FY01, with 367 kilograms of carbon tetrachloride removed.

Green

# SEPTEMBER 2001 **ACCOMPLISHMENTS continued: GW/VZ** 200 AREA ASSESSMENT: 200-TW-1/200-TW-2 Scavenged Waste/Tank Farms Operable Units: Drilling, sampling, and geophysical logging operations were completed at the 216-T-26 Crib on July 20. This satisfies FY02 Tri-Party Agreement Milestone M-15-41A, "Complete 200-TW-1 Operable Unit Field Work Through Drilling and Sample Collection," (due October 31) more than three months ahead of schedule. Installation and geophysical logging of five drive casings were completed along the centerline of the 216-B-38 Trench. 200-PW-2 Uranium-Rich Process Operable Unit: The Remedial Investigation/Feasibility Study (RI/FS) Work Plan, Rev. 0 was transmitted to the Washington State Department of Ecology (Ecology). Green 200-CW-1 Gable Mountain/B Pond Cooling Water Operable Unit: Transport modeling runs were completed for B Pond and B Ditches in support of the 200-CW-1 Operable Unit feasibility study. 200-BP-1 Hanford Prototype Barrier Long-Term Performance Monitoring: A technical interface meeting and site tour were conducted for Idaho National Engineering and Environmental Laboratory (INEEL) staff involved in remote-activated moisture sensor probe development. 200 Area Common Ecological Evaluation: The 200 Area ecological evaluation strategy and approach were reviewed with a representative from the Nez Perce Tribal Nation. SAFETY/ISMS/CONDUCT OF OPERATIONS: GW/VZ See Executive Summary. BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: GW/VZ None identified at this time. LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: GW/VZ None identified at this time. MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): GW/VZ **DOE Secretarial:** None identified at this time. **DOE EM Performance Agreement:** None identified at this time.

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#### MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS) continued: GW/VZ

#### • Tri-Party Agreement Milestones:

Milestone	Description	Due Date	(F)/(A) Date	
M-13-00K	Submit One 200 NPL RI/FS (RFI/CMS) Work Plan	12/31/00	12/21/00 (A)	<u></u>
M-13-25	Submit Uranium Rich Process Waste Group (200-PW-2) Work Plan	12/31/00	12/21/00 (A)	]
M-24-46	Install Three Additional Wells at SST WMA S-SX	12/31/00	12/27/00 (A)	
M-24-47	Install Four Additional Wells at SST WMA T	12/31/00	12/27/00 (A)	]
M-24-48	Install Three Additional Wells at SST WMA TX-TY	12/31/00	12/27/00 (A)	1
M-24-00L	Install RCRA Groundwater Monitoring Wells at the Rate of up to 50 in Calendar Year 2000 if Required	12/31/00	12/27/00 (A)	Green
M-16-27A	Complete 100-HR-3 Phase I, ISRM Barrier Emplacement	12/31/00	11/01/00 (A)	
M-24-49	Install Three Additional Wells at SST WMA S-SX	4/30/01	3/30/01 (A)	] [
M-24-50	Install Two Additional Well at SST WMA TX-TY	4/30/01	4/02/01 (A)	
M-15-41A	Complete 200-TW-1 OU Field Work through Drilling and Sample Collection	10/31/01	07/20/01 (A)	1
M-15-42A	Complete 200-TW-2 OU Field Work through Drilling and Sample Collection	10/31/01	09/25/01 (F)	
M-13-26	Submit Plutonium/Organic-Rich (200-PW-1) Work Plan	12/31/01	12/31/01 (F)	1)
M-13-00L	Submit Three 200 NPL RI/FS (RFC/CMS) Work Plans	12/31/01	12/31/01 (F)*	Yellow
M-16-27B	Complete 100-HR-3 Phase II, ISRM Barrier Emplacement (Planning, Well Installation, and Barrier Emplacement)	12/31/01	12/31/01 (F)	
M-24-51	Install Three Additional Wells at SST WMA B-BX-BY	12/31/01	8/29/01 (F)	]
M-24-52	Install Three Additional Wells at SST WMA U	12/31/01	9/12/01 (F)	
M-24-53	Install Two Additional Wells at SST WMA TX-TY	12/31/01	10/09/01 (F)	Green
M-24-54	Install One Additional Well at SST WMA T	12/31/01	10/08/01 (F)	
M-24-55	Install Two Additional Wells at SST WMA S-SX	12/31/01	11/06/01 (F)	]
M-24-00M	Install RCRA Groundwater Monitoring Wells at Rate of up to 50 in Calendar Year 2001 if Required	12/31/01	11/06/01 (F)	]

<sup>\*</sup>M-13 series milestones will require renegotiation to reflect the revised 200 Area strategy. This issue has been discussed with the regulators at the last three Tri-Party Agreement Quarterly Reviews. A Tri-Party Agreement change request is being prepared to modify the M-13 series milestones and will be forwarded to the regulators by August 31.

#### DNFSB Commitment:

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#### PERFORMANCE OBJECTIVES: GW/VZ PΙ Task **Status GW - ISRM** Drill 24 wells and inject sodium dithionite 32 wells were installed in FY01 (28 barrier **Barrier** by 9/30/01 emplacement wells and 4 compliance monitoring wells). Sodium dithionite has been injected into 25 wells of 28 barrier emplacement wells. The PI is for 24 wells and has been achieved. Our Green objective is to complete three more well injections CV <5.0%; SV <7.5% for BHI portion of ER-08 by the end of FY01. GW - 618-11 Drill wells to establish 20,000 pCi/L Four wells have been Tritium contour, collect Groundwater samples by identified with a fifth in **Plume** 9/30/01 (Stretch) question. On schedule to complete by 9/30/01. CV <5.0%; SV <7.5% for BHI portion of ER-08 (\*Detail in Section 6C) PERFORMANCE MEASURES/METRICS: GW/VZ **FY 2001 Routine Well Maintenance Completion** Green 160 140 Number of Wells (Cumulative) 120 100 – Plan 80 Actual ⋆ Forecast 60 40 20 0 Jan Feb Jun Jul Sep Month Includes Site (P51202) - 88 Wells and CERCLA (P61202) - 46 Wells Cumulative Aug Sep 34 Actual 52 70 Forecast Notes: Well Maintenance is planned on a quarterly basis and spread evenly by month for purposes of this graph When wells are "released" to the subcontractor for maintenance, he is given 90 days for completion. That is also spread evenly by month, for that 90-day period, for this graph.

**SEPTEMBER 2001** 

#### STRETCH AND SUPERSTRETCH GOALS: GW/VZ

FY01 GW/VZ "Stretch" Goals	Approved BCPs (K)
Tritium Plume at 618-11 Burial Ground – Collect GW Samples by 9/30/01 (BCP 21090 approved 1/01)	\$595.4K
S/Total GW – Vadose Zone Stretch Goals:	\$595.4K



FY01 GW/VZ "Superstretch" Goals	Approved BCPs (K)
*Complete Remediation of 60 Square Miles of Hanford Site: (1) River Corridor Well Decommissioning (90 wells)	\$1581.3K
S/Total GW - Vadose Zone Superstretch Goals:	\$1581.3K



#### PROJECT STATUS (COST/SCHEDULE): GW/VZ

#### Schedule:

BCWS	BCWP	Variance
\$K	\$K	\$K
3,214	2,553	(661)
25,133	22,973	(2,160)
9,656	8,474	(1,182)
38,003	34,000	(4,003)
	3,214 25,133 9,656	3,214 2,553 25,133 22,973 9,656 8,474



#### PBS-ER02 - 200 Area Remedial Action (Assessment)

Schedule Variance = (\$661K); (20.6%) [Last Month: (\$1257K); (48.3%)]

Cause: Delay in TW-2 start of drive casing installation and borehole drilling; difficulties in coordinating the many cross-project field activities slowing progress; offsetting early completion of TW-1 borehole drilling.

Resolution: Subcontract has been awarded and drilling activities began June 22; schedule supports completion of drilling activities by the end of September. Field closeout and demobilization will carry over to FY02.

<sup>\*</sup>Carried over from FY00. Work complete; currently developing Notice of Completion.

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#### PROJECT STATUS (COST/SCHEDULE) continued: GW/VZ

#### PBS-ER08 - Groundwater Management

Schedule Variance = (\$2161K); (8.6%) [Last Month: (\$1356K); (6.2%)]

Cause: RCRA well drilling delayed due to radiation contaminated soil discovery with waste shipments being placed on hold to pursue regulator recommended approach; and relocation of three wells causing use of an additional drill rig to expedite work.

**Resolution:** Aggressive schedule in place; some schedule recovery identified; three drill rigs will be used rather than two; waste disposal will carry over to FY02.

Cause: Routine well maintenance delayed to support non-routine sampling; well decommissioning delays caused by extended well documentation search and selection.

**Resolution:** Contractor is developing a recovery schedule for well maintenance; well D&D scheduled for completion by the end of August. Documentation was updated to accurately account for Hanford wells.

Cause: Pacific Northwest National Laboratory (PNNL) groundwater modeling on Hydrogeologic Framework and Uncertainty Analysis tasks are behind schedule due to resources deployed to higher priority work; groundwater Monitoring Network Design awaiting regulator decision on Low Level Burial Grounds (LLBG) and RCRA boundary; revision of A-29 Ditch Plan was on hold pending Ecology letter and subsequent B Pond proposal completion. Hydrologic testing had been delayed pending regulator approval of the test plan.

**Resolution:** Efforts on modeling tasks have been accelerated as resources became available. Agreement was reached within DOE-RL and FH on the WMA boundaries for the LLBG; FH will transmit a letter to Ecology; scope will be carried over to FY02; A-29 Ditch proposal will be presented to Ecology after B Pond proposal is transmitted and approved. Fieldwork continued on tracer tests and pump-back tests and schedule is being recovered; final analysis and documentation will be carried over to FY02.

#### PBS-VZ01 - Groundwater/Vadose Zone

Schedule Variance = (\$1182K); (12.2%) [Last Month: (\$1096K); (12.5%)]

Cause: SAC shakedown runs for historical matching took longer than anticipated, delaying the start of the model runs and preparation of the assessment report.

Resolution: Several software and data problems have been identified, and are being addressed. Delay will not impact completion of work scheduled this year.

Cause: The Soil Inventory S&T Task study did not start as scheduled due to key staff on medical leave.

**Resolution:** A plan has been developed to recover a portion of the schedule; partial carryover has been identified.

Cause: S&T experimental work on B-BX-BY tank farm samples delayed due to unanticipated low uranium concentrations and Office of River Protection (ORP) stand down.

**Resolution:** A plan has been developed to recover a portion of the schedule; partial carryover has been identified.

**SEPTEMBER 2001** 

#### PROJECT STATUS (COST/SCHEDULE) continued: GW/VZ

#### Cost:

GW/VZ Integration Project	FY01	BCWP	ACWP	Variance	l
	EAC	\$K	\$K	\$K	l <b>~</b>
ER02					, )
200 Area Remedial Actions	3,900	2,553	2,112	441	i I
ER08					
Groundwater Management	30,347	22,973	22,151	822	Green
VZ01					
Groundwater/Vadose Zone	10,552	8,474	7,822	652	
TOTAL Groundwater	44,799	34,000	32,085	1,915	ل ا

#### PBS-ER02 – 200 Area Remedial Action(Assessment)

Cost Variance = (\$441K); (17.3%) [Last Month: (\$102K); (7.6%)]

Cause: The 200-TW-2 drilling subcontract costs were less than planned; less effort was required for the drive casings at the B-38 trench.

**Resolution:** Underrun has been reflected in the EAC.

#### PBS-ER08 - Groundwater Management

Cost Variance = **\$822K**; **3.6%** [Last Month: \$325K; 1.6%]

Cause: Sample analysis underruns due to efficiencies in planning well trips and analyses, and other Hanford contractors' costs being less than planned.

Resolution: Underrun has been trended and reflected in the EAC.

Cause: IRSM well installation and barrier emplacement costs have been less than planned due to efficiencies in well drilling subcontract costs and chemical purchases.

**Resolution:** Underrun has been trended and reflected in the EAC.

#### PBS-VZ01 - Groundwater/Vadose Zone

Cost Variance = \$652K; 7.7% [Last Month: \$380K; 5.0%]

Cause: Characterization of Systems (COS) Phase I Features, Events, and Processes (FEP) review required fewer resources than planned; offsetting overrun in System Assessment Capability (SAC) historical matching from system enhancements; S&T underrun due to a credit from FY 2000 accrual reversal.

Resolution: Underrun will be trended and reflected in the EAC. Work on individual technical element history matching is complete and no additional variances are anticipated. Runtime reductions have been implemented and the project continues to seek ways to streamline the overall history matching and initial assessment runs.

SEPTEMBER 2001

#### **REGULATORY ISSUES: GW/VZ**

Tri-Party Agreement M-13-00x and M-20-xx Milestones: Tri-Party Agreement Milestone M-13-00L requires the submittal of three 200 National Priorities List (NPL) Remedial Investigation/Feasibility Study (RI/FS) work plans by December 31, 2001. One work plan is in process (200-PW-1). A change request addressing the other two work plans is being prepared and will be submitted to the Washington State Department of Ecology (Ecology). RL management, in consultation with the U.S. Environmental Protection Agency (EPA), Ecology, and the Hanford Advisory Board (HAB), developed an alternate approach for completing the assessment of the 200 Area non-tank farm operable units on the Hanford Site. The alternate approach calls for completion of the characterization of 12 representative analogous waste site operable units by 2008.



**Status:** RL's long range plan is based on the alternate assessment approach for the 200 Area. This approach would require modification of several *Tri-Party Agreement* milestones including the M-13 and M-20 major milestones. Tri-Party Agreement change requests are being prepared and will be forwarded for regulatory review and approval. It is RL's intent to formally transmit the change requests to Ecology no later than August 31, 2001. Since these change requests affect Tri-Party Agreement major milestones, a public review will be required. The regulatory agencies have previously expressed interest in negotiating the 200 Area changes in conjunction with negotiation of the M-16-00F (Establish Date for Completion of All 100 Area Remedial Actions) and M-16-03A (Establish Date for Completion of 300 Area Remedial Actions).

#### EXTERNAL ISSUES (i.e. HAB, Congress, etc.): GW/VZ

None identified at this time.

#### DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): GW/VZ

None identified at this time.

#### INTEGRATION ACTIVITIES: GW/VZ

On July 11, drilling was initiated for the calendar year 2001 (CY01) RCRA well installations. Eleven wells are planned for installation by December 31, 2001. The first six wells will be installed in support of the Office of River Protection (ORP).



# Surveillance/Maintenance and Transition Projects (SM&T)

SEPTEMBER 2001

# SECTION C – TRANSITIONING THE CENTRAL PLATEAU

Financial / Performance Measures data as of month-end July. All other data as of August 23, 2001 (unless otherwise noted).

#### **Surveillance/Maintenance & Transition Projects (SM&T):**

#### **ACCOMPLISHMENTS: SM&T**

Surveillance and Maintenance: S&M activities that were performed in July to ensure inactive facility integrity and safety included the following:

- Completed planned asbestos abatement at the 224-U facility in the 200 Area.
- Completed roof repairs at the 212-N, 212-R, and 221-U facilities. Roof repairs were also initiated on the silo section at the Reduction Oxidation (REDOX) facility.
- Completed and issued the 200 North Basis for Interim Operations (BIO) annual update. This is a DOE approval document for operation of nuclear facilities.
- Submitted "Evaluation of Alternatives for the Interim Stabilization of the Hexone Tanks" document for RL and regulator review.
- Approved and issued the final guidance plan for implementation of the Inactive Miscellaneous Underground Storage Tank (IMUST) interim storage strategy.
- Completed the B Plant contractor modification that allowed lighting circuits to be deenergized.
- Submitted the 224-B facility Safety Analysis Report (SAR) update to RL for review and approval.
- Commenced interim stabilization of the Plutonium-Uranium Reduction Extraction (PUREX) E Field. The PUREX E Field is a soil-contaminated area approximately 1.6 hectares (four acres) in size and is located in a high-traffic area.
- Completed the public comment and review period for the B Reactor Engineering Evaluation/Cost Analysis (EE/CA). The U.S. Environmental Protection Agency (EPA) has reviewed the comments and will prepare the Action Memorandum and the responsiveness summary.

Canyon Disposition Initiative (CDI): The draft CDI Phase III feasibility study and proposed plan were submitted to RL for review. This study provides a detailed analysis of several alternatives to be considered for final disposition of the deactivated 221-U (U Plant) chemical processing canyon facility. The study is also expected to influence a final disposition determination for the four other canyon facilities on the Hanford Site (PUREX, B Plant, REDOX, and T Plant).

#### **SAFETY/ISMS/CONDUCT OF OPERATIONS: SM&T**

See Executive Summary.

#### BREAKTHROUGHS/OPPORTUNITIES FOR IMPROVEMENT: SM&T

None identified at this time.

#### LONG-TERM (6 MONTHS PLUS) IMPORTANT ITEMS: SM&T

None identified at this time.

Green

SEPTEMBER 2001

#### MAJOR COMMITMENTS (FISCAL YEAR PLUS 6 MONTHS): SM&T

#### **DOE Secretarial:**

None identified at this time.

#### **DOE EM Performance Agreement:**

None identified at this time.

#### **Tri-Party Agreement Milestones:**

None identified at this time.

#### **DNFSB Commitment:**

None identified at this time.

#### PERFORMANCE OBJECTIVES: SM&T

None identified at this time.

#### PERFORMANCE MEASURES/METRICS: SM&T

None planned in FY01.

#### STRETCH AND SUPERSTRETCH GOALS: SM&T

None identified at this time.

#### PROJECT STATUS (COST/SCHEDULE): SM&T

#### Schedule:

Surveillance/Maintenance & Transition Project	BCWS	BCWP	Variance	
	\$K	\$K	\$K	_
ER05				)
Surveillance & Maintenance	11,693	11,501	(192)	
ER07				Green
Long-Term Surveillance & Maintenance	37	42	5	
TOTAL SM&T	11,730	11,543	(187)	J

#### PBS-ER05 - Surveillance and Maintenance

Schedule Variance = (\$192K); (1.6%) [Last Month: (\$392K); (3.7%)]

Cause: RCRA interim stabilization delayed due to resources being utilized to install a road in support of BNI core drilling efforts in the 200 Area.

**Resolution:** Full schedule recovery is expected.

Cause: In the Detailed Work Plan (DWP), the assumption was that the asbestos abatement subcontract would be awarded and expended in November 2000. Combining 100 and 200 Area asbestos work subsequently resulted in a subcontract where work will commence in April 2001 and still finish this fiscal year, causing a temporary negative schedule variance.

**Resolution:** A subcontract has been placed to execute work scope activities. Work is planned from April through August 2001. Full schedule recovery is expected.

#### PBS-ER07 – Long-Term Surveillance and Maintenance (BCWS \$59K for FY01)

Schedule Variance = N/A

**SEPTEMBER 2001** 

#### PROJECT STATUS (COST/SCHEDULE) continued: SM&T

#### • Cost:

Surveillance/Maintenance & Transition Project	FY01 EAC	BCWPS	ACWP	Variance	
		\$K	\$K	\$K	ſ
ER05					)
Surveillance & Maintenance	12,604	11,501	10,555	946	
ER07					Green
Long-Term Surveillance & Maintenance	30	42	14	28	
TOTAL SM&T	12,634	11,543	10,569	974	J

#### PBS-ER05 - Surveillance and Maintenance

Cost Variance = **\$946K**; **8.2%** [Last Month: \$795K; 7.9%]

Cause: Underruns in 200 Area S&M work on passive vent sealing, waste disposition, roof inspections, and herbicide application subcontract costs underruns are offset by hexone tank sampling cost overruns from additional engineering, additional job hazard analysis, and higher mobilization costs.

**Resolution:** Underrun/overrun have been trended and are reflected in the EAC.

#### PBS-ER07 - Long-Term Surveillance and Maintenance (BCWS \$59K for FY01)

Cost Variance = N/A

#### **REGULATORY ISSUES: SM&T**

None identified at this time.

#### EXTERNAL ISSUES (i.e. HAB, Congress, etc.): SM&T

None identified at this time.

### DOE-RL & HQ ISSUES/REQUESTS (not covered elsewhere): SM&T

None identified at this time.

#### **INTEGRATION ACTIVITIES: SM&T**